

implantation site. After 10 months of follow up, the patient is in complete response and side effect of xerostomia and mucositis presents G1.

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#### Endocavitary HDR brachytherapy with Ir192 using a Chassagne mould

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**Introduction.** Radiotherapy is an essential part of cervical cancer treatment. The application of endocavitary radiotherapy can be done with generic or personalized applicators using high or low dose rate or with pulsed radiation. Previously, treatment prescription was made to point A (ICRU 38), and recently, with the development of 3D brachytherapy planning systems, it's prescribed to CTV. We have gone from prescription by points (A and B) using orthogonal radiographic simulation and dose limiting rectal and bladder points, to prescription to volume (CTV) with simulation using CT/MRI and limiting dose to certain volumes of organs at risk (bladder, rectum and sigmoid colon).

**Objective.** To describe the procedure of brachytherapy with Ir192 high dose rate using a in-house Chassagne mould.

**Materials and methods.** We describe the procedure to make a vaginal mould (with alginate powder) on the 4–5th week of treatment with external beam radiotherapy. We canalize the endocervical channel with a Cornier cannula, either by direct visualization or by hysteroscopy in cases where it is not possible to visualize or get through the cervical external os. Then we introduce gauze to the bottom of the vaginal pouch, and diluted calcium alginate powder. We wait for its solidification to remove it and include it in plaster. This plaster impression is used to make the definitive acrylic resin mould where 3 channels are carved to make place for the applicators (2 vaginal and 1 uterine). Later, we perform 5 applications: the first one for treatment planning (using CT/RM and orthogonal radiographs) and, after that, 4 applications of brachytherapy done once a week. Dose prescription is made to the CTV, administering 7 Gy in each session, while the dose constraints used are V6 Gy less than 2cc to the bladder and V5 Gy less than 2cc of rectum and sigmoid colon.

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#### Episcleral brachytherapy in the treatment of choroidal melanoma

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Episcleral brachytherapy is a conservative alternative to enucleation in the treatment of choroidal melanomas and some other eye injuries as angioma or macular degeneration associated with age. This video describes the process of this technique for the diagnosis and indication to surgical technique, through dosimetry, indispensable throughout radiotherapy. It also details the radiation protection standards, as they work with radioactive sources.

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#### Interstitial HDR brachytherapy for oral tongue cancer: Educational video

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**Purpose.** Interstitial brachytherapy is a classic technique in the treatment of oral tongue cancer. Low dose rate brachytherapy has been used for many years, with good clinical results. Currently, improvement in surgical technique has reduced the number of available cases in the Radiation Oncology Departments in our country. However, new developments in brachytherapy (HDR afterloading, computer calculations, CT-based dosimetry) create a good environment to promote this technique for selected patients. In this educational video we will show the step-by-step technique for interstitial HDR brachytherapy in oral tongue cancer, with emphasis in the multidisciplinary work. Informed consent was obtained and signed by the patient before recording the video footage.

**Step-by-Step Technique.** 1. General anesthesia with naso-tracheal tube. 2. Field cleansing and preparation: using sterile technique the field was prepared and the oral cavity was washed with antiseptic solution. 3. Physical exam: the dimensions of the lesion were assessed by inspection and palpation. The presence of satellite lesions, leukoplakia and other suspicious lesions was assessed. The lesion is then delineated with an sterile marker. 4. Clipping of the lesion: sterile markers were inserted with the help of a hollow needle. Four markers were inserted to help the assessment of the lesion from CT images. 5. Implant planning: from the previous steps, a previsual ballistics is planned. Needle entry points are marked in the skin of the patient. 6. Implant